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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,724

04/15/2004

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EXAMINER

FREAY, CHARLES GRANT

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

07/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,724	Applicant(s) POHLER, DONALD M.	
	Examiner Charles G. Freay	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 6-14, 17-22, 25-27, 30-37, 40-43 and 47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 15, 16, 23, 24, 28, 29, 38, 39, 44-46 and 48-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 4, 2008 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5, 15, 16, 23, 24, 28, 29, 38, 39 and 44-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification describes the housing as being a one piece unitary housing, see for example page 9 lines 9 and 10. Figures 12, 14 and 18 shown however that there are two pieces to the housing. The first piece being the element referenced by the numeral 123 and the second piece being the

element referred to by the reference numeral 450. The element 450 closes off the rear opening in the element 123 and forms the motor chamber for the pump. It is clear from the disclosure that the housing is not a single unitary piece.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 29, 39 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis (USPN 2,312,525) in view of Shoda et al (USPN 6,524,085).

Curtis discloses an electric motor driven pump having a cover (16) forming part of the volute chamber (21) of the pump. Regarding claims 29, 39, and 45 the end cover (40) has an opening (82), a shaft opening and a bearing race respectively. Curtis does not disclose that the housing is formed of a single unitary element. Shoda et al discloses an electric motor driven impeller pump which has a single unitary pump housing element (2h, as disclosed by the applicant) having a cover (8, see Fig. 6a) for forming the pump chamber. At the time of the invention it would have been obvious to one of ordinary skill in the art to create the housing of Curtis of a single unitary piece as taught by Shoda et al in order to simplify the construction and reduce the number of elements.

Claims 16, 23, 24, 29 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathis et al (USPN 6,464,471) in view of Shoda et al.

Mathis et al disclose a pump having a motor disposed in a cylindrical housing (68). The housing has an open end with a cover (36) attached thereto. The housing has a first air inlet opening (56) and a first air outlet opening (80). In Mathis the cover is made of plastic (col. 3 line 53). Mathis does not disclose that the housing is formed of a single unitary element. Shoda et al disclose an electric motor driven impeller pump which has a single unitary pump housing element (2h, as disclosed by the applicant) having a cover (8, see Fig. 6a) for forming the pump chamber. At the time of the invention it would have been obvious to one of ordinary skill in the art to create the housing of Mathis et al of a single unitary piece as taught by Shoda et al in order to simplify the construction and reduce the number of elements.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harker et al (USPN 4,569,638) in view of Curtis.

Harker et al disclose an electric motor (6, 16) driven impeller (119) pump having a cover (103). There is a unitary housing (1) having a first portion for the motor and a second portion forming part of the pump chamber. There is an exclusionary plate (101) having a hole through which the shaft extends and there is an annular region (20) forming a seal flood region and a counterbore holding a seal (near 22). Harker et al do not disclose that the cover forms a volute chamber within the pump chamber. Curtis teaches that it is known to form a volute chamber between a unitary housing and a

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cover in an impeller pump. At the time of the invention it would have been obvious to one of ordinary skill in the art to form the pump chamber with an impeller therein as a volute chamber as taught by Curtis for reducing the flow velocity of the pumped fluid.

Claims 1-5, 16, 23, 24 and 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harker et al (USPN 4,569,638) in view of Ozawa et al (USPN 5,865,597).

Harker et al disclose an electric motor (6, 16) driven impeller (119) pump having a cover (103). There is a unitary housing (1) having a first portion for the motor and a second portion forming part of the pump chamber. There is an exclusionary plate (101) having a hole through which the shaft extends and there is an annular region (20) forming a seal flood region and a counterbore holding a seal (near 22). Harker et al do not disclose that the cover forms a volute chamber within the pump chamber or that the exclusionary plate forms a gap with the shaft and there being first and second passageways between the pump cavity and the seal flood region. Ozawa teaches that it is known to form a volute chamber (P2) between a housing (11) and a cover (11b) in an impeller pump. Furthermore, Ozawa teaches of an exclusionary plate (18) forming a gap with the shaft (15) between the volute chamber and a seal flood region (23) having a counterbore (22) with a seal (24). There are first and second passageways between the pump cavity and the seal flood region (the upper and lower passages between plate 38, 18 and the back of impeller plate 16a). At the time of the invention it would have been obvious to one of ordinary skill in the art to form the pump chamber with an

impeller therein as a volute chamber as taught by Ozawa and to substitute the Ozawa sealing arrangement for that of Harker et al's for the purpose of creating a durable and reduced noise impeller (col. 1 line 57-65) sealing arrangement.

With regards to claim 51 the examiner notes that the "wall" and the "port" limitations are broad limitations and can be read of the cover plate and the inlet and outlet openings.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of Harker et al in view of Curtis or Curtis in view of Shoda et al as set forth in the above rejections as applied to claim 1 above, and further in view of Ishida et al (USPN 5,248,238).

As set forth above each of Harker et al in view of Curtis and Curtis in view of Shoda et al disclose the invention substantially as claimed but does not disclose that the housing is made of aluminum. Ishida et al disclose an electric motor driven pump having a housing made of aluminum (col. 1 para. 1). At the time of the invention it would have been obvious to one of ordinary skill in the art to make the housing of aluminum as taught by Ishida et al in order to create a lightweight and corrosion resistant housing.

Claims 15 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harker et al in view of Ozawa as set forth in the above rejections as applied to claim 1 above, and further in view of Ishida et al (USPN 5,248,238).

As set forth above Harker et al in view of Ozawa discloses the invention substantially as claimed but does not disclose that the housing is made of aluminum. Ishida et al disclose an electric motor driven pump having a housing made of aluminum (col. 1 para. 1). At the time of the invention it would have been obvious to one of ordinary skill in the art to make the housing of aluminum as taught by Ishida et al in order to create a lightweight and corrosion resistant housing.

Claims 44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathis in view of Shoda et al as applied to claim 29 above, and further in view of DeAngelis (USPN 4,162,419).

As set forth above Mathis in view of Shoda et al discloses the invention substantially as claimed but does not disclose the end cover (94) having holed flanges for mounting fasteners. DeAngelis discloses a cylindrical motor housing (14) having an end cover (94) having holed flanges for mounting bolts (Fig. 4). At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize a cover with holes and bolts as a simple means of attaching the cover to the housing.

Response to Arguments

Applicant's arguments with respect to the elected claims have been considered but are moot in view of the new ground(s) of rejection. Specifically the Shoda et al and Harker et al references disclose housing made of a single unitary part as disclosed by the applicant and the Ozawa reference discloses the details of the exclusionary plate as detailed in the above rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/
Primary Examiner
Art Unit 3746

CGF
July 19, 2008